

## **Appendix A**

### **Institutional Control Plan for the Power Burst Facility And Auxiliary Reactor Area, Operable Unit 5-12**

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# **1. INTRODUCTION AND PURPOSE**

In accordance with the Federal Facility Agreement and Consent Order (FFA/CO)(DOE-ID 1991) between the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Idaho Division of Environmental Quality (IDEQ), hereafter referred to as the Agencies, DOE submitted the following Institutional Control Plan (ICP) for the Power Burst Facility (PBF) and Auxiliary Reactor Area (ARA) for Waste Area Group (WAG) 5. Under the current remediation management strategy outlined in the FFA/CO, the location identified for the remedial action is designated as WAG 5, Operable Unit (OU) 5-12 at the Idaho National Engineering & Environmental Laboratory (INEEL).

The purpose of this ICP is to document current activities and planned future programs for implementing Record of Decision (ROD) mandated institutional controls (ICs) for sites within WAG 5, OU 5-12. The ROD identified 15 sites within OU 5-12 as requiring institutional controls, and six of these 15 sites will also undergo remediation in accordance with the ROD. The remaining 40 sites have been identified as being “No Action”, for which institutional controls will not be required.

This plan was developed in accordance with EPA Region 10 Policy (EPA 1999c) and provides a comprehensive approach for establishing, implementing, enforcing, and monitoring institutional controls at WAG 5. The need for institutional controls following remediation will be established by post-remediation sampling.

## **1.1 INEEL Comprehensive Facility and Land Use Plan**

In accordance with EPA Region 10 requirements, the Comprehensive Facility and Land Use Plan (CFLUP) is used to document the use of ICs at the INEEL (DOE-ID 2000). The CFLUP provides guidance on facility and land use at the INEEL through the 100 year scenario, includes specific land use information about the ARA/PBF facility, and is updated as needed when information, such as changes to land use, occurs.

The preferred future land uses were identified through a stakeholder process that included a public participation forum, a public comment period, and the Citizen’s Advisory Board. The public participation forum was established to discuss and review development of the long-term land use scenarios and to identify regional planning issues that could affect the scenarios. The forum membership included members from local counties and cities, the Shoshone-Bannock Tribes, the Bureau of Land Management (BLM), the DOE, the U.S. Forest Service, the U.S. Park Service, the Idaho Departments of Transportation and Fish and Game, and eight business, educational, and citizens' organizations. The EPA and the IDEQ participated in an ex officio capacity. The report was subject to a 30-day public comment period.

Establishment of new projects and/or major land use changes at the INEEL will be coordinated with affected neighboring federal land management agencies, state resource management agencies, tribal agencies, private land owners, and the public.

## 2. OU 5-12 SITES REQUIRING INSTITUTIONAL CONTROLS

The ROD for OU 5-12 has identified 15 sites requiring either new or continuing ICs. Nine of those sites require “Limited Action” and the other six require remedial action to reduce the risk posed to human health and the environment. These sites are listed in Table 2-1.

**Table 2-1.** OU 5-12 Sites requiring institutional control.

Site Code	Site Name	ROD Determination	Survey Coordinates	
			Easting	Northing
ARA-01	ARA-I Chemical Evaporation Pond	Remedial Action/ Institutional Controls	326424.688	674685.313
			326528.844	674720.5
			326751.094	674526.313
			326718.938	674496.75
			326615.156	674502.75
ARA-02	ARA-I Sanitary Waste System	Remedial Action/ Institutional Controls	326500.264	674803.653
			326528.548	674831.937
			326570.975	674789.511
			326748.531	674548.187
			326542.691	674761.226
ARA-03	ARA-I Lead Sheeting Pad near ARA-627	Institutional Controls	326489.955	674905.308
			326573.045	674989.095
			326616.528	674945.613
			326533.089	674862.174
ARA-06	ARA-II Stationary Low-Power Reactor No. 1 Burial Ground	Institutional Controls	327133.081	676695.521
			327659.578	676983.273
			327803.454	676720.024
			327276.957	676432.273
ARA-12	ARA-III Radioactive Waste Leach Pond	Remedial Action/ Institutional Controls	323640.598	680031.406
			323986.5	680285.75
			324047.516	680226.092
			323844.253	679933.266
ARA-16	ARA-I Radionuclide Tank	Remedial Action/ Institutional Controls	326510.07	675103.645
			326520.676	675114.251
			326534.818	675100.109
			326524.212	675089.502

**Table 2-1.** (continued).

Site Code	Site Name	ROD Determination	Survey Coordinates	
			Easting	Northing
ARA-23	ARA-II Radiologically Contaminated Surface Soils Around ARA-I and ARA-II	Remedial Action/ Institutional Controls	324782.563	675484.875
			326082.906	677257.188
			329650.188	676662.875
			326606.656	673908.313
			325204.25	673325.375
ARA-24	ARA-III Windblown Soil	Institutional Controls	323905.719	680462.438
			324171.031	680977.188
			324400.313	681079.125
			324683.938	680544.688
			324152.938	680193.75
ARA-25	ARA-I Soils beneath the ARA-626 Hot Cells	Remedial Action/ Institutional Controls	326335.052	675060.945
			326413.326	675138.537
			326455.315	675096.547
			326373.498	675014.73
PBF-10	PBF Reactor Area Evaporation Pond (PBF-733)	Institutional Controls	312583.969	688893.91
			312803.811	688892.141
			312581.611	688664.047
			312801.454	688662.279
PBF-12	PBF SPERT-1 Leach Pond	Institutional Controls	312414.3	688583.7
			312439.3	688583.7
			312439.3	688538.7
			312414.3	688538.7
PBF-13	PBF Reactor Area Rubble Pit	Institutional Controls	312291.475	689247.398
			312313.981	689270.943
			312364.52	689231.18
			312341.011	689213.082
PBF-21	PBF SPERT-III Large Leach Pond	Institutional Controls	316924.619	687200.502
			316964.078	687199.031
			316964.373	687144.659
			316924.942	687141.379

**Table 2-1.** (continued).

Site Code	Site Name	ROD Determination	Survey Coordinates	
			Easting	Northing
PBF-22	PBF SPERT-IV Leach Pond (PBF-758)	Institutional Controls	315868.494	683417.199
			315960.142	683610.285
			316161.111	683478.267
			316144.297	683372.018
			316034.241	683310.976
PBF-26	PBF SPERT-IV Lake	Institutional Controls	315837.188	682526.5
			315564.094	683190.375
			315862.906	683324.5
			316022.906	683087.875
			315895.594	682902.375
			316318.55	682553.729
			316312.43	682370.234
			316218.694	682312.527

### 3. INSTITUTIONAL CONTROLS

Institutional controls will be maintained by the DOE at any Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) site at the INEEL where residual contamination precludes unrestricted land use. “No Action” sites—sites where the current residential, current occupational, and future residential risks are all less than or equal to 1E-04—require neither ICs nor 5-year reviews and allow unrestricted land use. “Limited Action” sites have a current residential risk greater than 1E-04, but a current occupational and future residential risk less than or equal to 1E-04. “Limited Action” sites can also be sites with acceptable risks, but with notable uncertainty in the risk calculations. Controls will remain in place at each “Limited Action” site for at least 100 years or until the site is released for unrestricted use in a 5-year review.

When it has been identified that the need requiring ICs no longer exists as a given CERCLA site, a recommendation will be provided to the Agencies that ICs be discontinued for that site. Such recommendations will normally be made in conjunction with a 5-year review unless a circumstance arises requiring a request to the Agencies earlier than a scheduled review. In accordance with the Region 10 Final Policy on the “Use of Institutional Controls at Federal Facilities” (EPA 1999c), “The facility will not delete or terminate any IC unless EPA and the state have concurred in the deletion or termination.”

#### 3.1 Institutional Control Components

Institutional controls have been designated as a part of the remedial design/remedial action (RD/RA) process for the major groups within WAG 5 OU 5-12. Table 3-1 presents the required ICs and their individual components.

**Table 3-1.** WAG 5 institutional controls.

Institutional Control	Control Components
Visible Access Restrictions	<ol style="list-style-type: none"> <li>1. Warning Signs</li> <li>2. Fencing</li> </ol>
Control of Activities	<ol style="list-style-type: none"> <li>1. Management Control Procedures</li> <li>2. Public Notices</li> <li>3. DOE Orders</li> <li>4. DOE-ID Directive on institutional controls</li> <li>5. Publication of surveyed boundaries in INEEL Land Use Plan</li> </ol>
Prevention of Unauthorized Access	<ol style="list-style-type: none"> <li>1. Warning Signs</li> <li>2. Fencing</li> <li>3. Management Control Procedures</li> </ol>
Land Use Restrictions	<ol style="list-style-type: none"> <li>1. Deed Restrictions</li> <li>2. Restrictive Covenants</li> <li>3. Property Lease or Transfer Restrictions</li> <li>4. Zoning Ordinances</li> </ol>
Regulatory Restrictions	<ol style="list-style-type: none"> <li>1. Idaho Department of Water Resources (IDWR) Well Drilling Restrictions</li> </ol>
Notice to Affected Stakeholders such as County Governments, Bureau of Land Management (BLM), General Services Agency (GSA), United States Fish and Wildlife Service (USF&WS) and the Sho-Ban Government.	<ol style="list-style-type: none"> <li>1. A process to promptly notify the stakeholders before any anticipated change in land use designations, restrictions, land users, or activities for any institutional control required by a decision document. This notification may include written documentation, public announcements, or another type of information dissemination.</li> </ol>

### **3.1.1 Visible Access Restrictions**

Visible Access Restrictions are those ICs that deal with restricting personnel access to a specific waste site. In the case of WAG 5, OU 5-12, these restrictions will be perimeter fencing or permanent markers and warning signs. Warning signs will clearly identify the risk-based concerns at the waste site, include a map of the waste site, and be visible from all avenues of approach.

### **3.1.2 Control of Activities**

Activities on a waste site are subject to ICs that deal with administrative measures. These ICs will cover all entities and persons that access a controlled waste site, including, but not limited to employees, contractors, lessees, and visitors. Although it is unlikely that routine trespassing would occur during DOE operations, trespassers will be included. The ICs will cover all activities and reasonably anticipated future activities, including, but not limited to any future soil disturbance, routine and non-routine utility work, well placement and drilling, recreational activities, groundwater extraction, paving, training activities, construction, renovation work on structures, or other activities which might occur at a waste site. These controls include, but are not limited to the following items:

- INEEL CFLUP
- Management Control Procedures (including construction activities)
- Public Notices
- DOE-ID Directives
- Radiological Work Permits
- Personnel Training.

### **3.1.3 Unauthorized Access**

Unauthorized Access refers to those ICs that prevent the unauthorized entry of personnel and vehicles on or into a waste site. At both the INEEL and the PBF facilities, identification badges are required for an individual to enter a site unescorted. Any member of the general public that visits the INEEL or PBF must pass through visitor control and be escorted by authorized personnel. Sites that pose a radiological exposure risk to personnel or visitors are physically and administratively controlled so that only radiologically trained workers can access the sites and their exposure is maintained as low as reasonably achievable (ALARA).

### **3.1.4 INEEL Comprehensive Facilities and Land Use Plan**

The INEEL CFLUP specifies ICs that deal with land use. A map based on surveyed coordinates of the institutionally controlled waste sites and a list of the required ICs will be published in the INEEL CFLUP. This list will include:

- The objective of the restriction or control
- The control or restriction
- The time frame for which the restrictions apply

- The tools and procedures that will be used to implement the restrictions or controls and evaluate the effectiveness of these restrictions or controls
- A point of contact.

The CFLUP will function as a tracking mechanism for changes to land use and land use controls by controlling and documenting revisions to these maps. Internal procedures will require current updating of the CFLUP.

### **3.1.5 Regulatory Restrictions**

Regulatory Restrictions are those ICs that limit the manner in which normal work activities may be performed at ARA/PBF.

### **3.1.6 Notice to Affected Stakeholders**

Some waste sites require that affected stakeholders be given special notification prior to the occurrence of any change in land use designation, land-use restriction, or land user. The specific stakeholders include, but are not limited to the following:

- BLM
- Shoshone-Bannock Tribal Council
- US Fish and Wildlife Service
- Local County governments
- State of Idaho
- EPA.

## **3.2 WAG 5 OU 5-12 Institutional Controls**

Institutional controls at OU 5-12 will be maintained until the next 5-year review. At such time, the Agencies may elect to retain the site under the Institutional Control Plan if the residential, occupational and future occupational risk to human health and the environment exceeds 1E-04 at the identified sites. Table 3-2 presents the ICs for the 15 sites.

Institutional controls for all sites will include the INEEL security gate and a CERCLA sign. Attachment 1 provides a template of a CERCLA sign.

Permanent markers currently exist at four of the 15 sites. Although risk based cleanup goals have been met, two additional sites (ARA-24 and PBF-13) will receive markers within 1 year, as contamination remains at these sites. At ARA-24, a contaminated pipe is 20 ft below ground surface, thereby meeting the 10 ft basement scenario. At PBF-13, the construction waste pile may contain friable asbestos.

**Table 3-2.** Institutional controls for OU 5-12 sites.

	Site Name	Visible Access Restrictions	Control of Activities	Prevention of Unauthorized Access	Land Use Restrictions
	ARA-01 <sup>a</sup> ARA-I Chemical Evaporation Pond	1. CERCLA sign		1. INEEL security gate	No restrictions
	ARA-02 <sup>a</sup> ARA-I Sanitary Waste System	1. CERCLA sign		1. INEEL security gate	No restrictions
	ARA-03 ARA-I Lead Sheeting Pad near ARA-627	1. CERCLA sign	1. RWP required for entry	1. INEEL security gate 2. RAD Fencing	Industrial land use pending 5 year review
	ARA-06 <sup>a</sup> ARA-II Stationary Low-Power Reactor No. 1 Burial Ground	1. CERCLA sign 2. Permanent marker <sup>b</sup>	1. RWP required for entry	1. INEEL security gate 2. RAD fencing	Land use restrictions will accompany land transfer
	ARA-12 <sup>a</sup> ARA-III Radioactive Waste Leach Pond	1. CERCLA sign		1. INEEL security gate	No restrictions
	ARA-16 <sup>a</sup> ARA-I Radionuclide Tank	1. CERCLA sign		1. INEEL security gate	No restrictions
	ARA-23 <sup>a</sup> ARA-II Radiologically Contaminated Surface Soils Around ARA-I and ARA-II	1. CERCLA sign	1. RWP required for entry	1. INEEL security gate 2. RAD Fencing	No restrictions
	ARA-24 ARA-III Windblown Soil	1. CERCLA sign 2. Permanent marker <sup>c</sup>		1. INEEL security gate	Land use restrictions will accompany land transfer
	ARA-25 <sup>a</sup> ARA-I Soils beneath the ARA-626 Hot Cells	1. CERCLA sign		1. INEEL security gate	No restrictions
	PBF-10 PBF Reactor Area Evaporation Pond (PBF-733)	1. CERCLA sign 2. Permanent marker		1. INEEL security gate 2. PBF facility fencing	Industrial land use pending 5 year review
	PBF-12 PBF SPERT-1 Leach Pond	1. CERCLA sign 2. Permanent marker <sup>b</sup>		1. INEEL security gate 2. PBF facility fencing	Industrial land use pending 5 year review
	PBF-13 PBF Reactor Area Rubble Pit	1. CERCLA sign 2. Permanent marker <sup>c</sup>		1. INEEL security gate 2. PBF facility fencing	Land use restrictions will accompany land transfer
	PBF-21 PBF SPERT-III Large	1. CERCLA sign		1. INEEL security gate	Industrial land use pending 5 year review

**Table 3-2.** (continued).

	Site Name	Visible Access Restrictions	Control of Activities	Prevention of Unauthorized Access	Land Use Restrictions
	Leach Pond	2. Permanent marker <sup>b</sup>		2. PBF facility fencing	review
PBF-22	PBF SPERT-IV Leach Pond (PBF-758)	1. CERCLA sign		1. INEEL security gate 2. PBF facility fencing	Industrial land use pending 5 year review
PBF-26	PBF SPERT-IV Lake	1. CERCLA sign		1. INEEL security gate 2. PBF facility fencing	Industrial land use pending 5 year review

a. The ICs for these sites assume all Remedial Action Goals were met.

b. A permanent marker is currently in place.

c. A permanent marker will be installed within one year. Although risk based cleanup goals have been met, contamination remains and may be disturbed during later activities.

## **4. INSPECTION**

In accordance with INEEL land-use plans (DOE-ID 1997), DOE will provide ICs for sites subject to land use restrictions over the next 100 years, unless a 5-year review concludes that unrestricted land use is allowable. To facilitate the 5-year reviews, a detailed assessment of the ICs for each WAG 5 OU 5-12 major group will be performed using the “Institutional Control Field Inspection Checklist” and other means of documentation that may be developed. A draft of the WAG 5 OU 5-12 inspection checklist is provided in Appendix B.

After 100 years, DOE may no longer manage INEEL activities and controls will take the form of land-use restrictions. Though land use after 100-years is highly uncertain, industrial applications will most likely continue at the INEEL and WAG 5. To note, routine maintenance is not planned for any of the WAG 5 CERCLA sites. Unscheduled custodial maintenance activities will be determined during regularly scheduled inspections.

## **5. LEASING OR TRANSFER OF PROPERTY**

The DOE will notify the EPA and the State of Idaho at least 6 months prior to any WAG 5, OU 5-12 transfer, sale, or lease of any property subject to ICs required by the WAG 5 OU 5-12 ROD. The EPA and the State of Idaho can then be involved in discussions to ensure that appropriate provisions are included in the conveyance documents to maintain effective ICs. If it is not possible for the DOE to notify the EPA and the State of Idaho at least 6 months prior to any transfer, sale, or lease of any property subject to ICs, the DOE will notify the EPA and the State of Idaho as soon as possible, but no later than 60 days prior to the transfer.

It is not anticipated that the land in WAG 5 will be subject to leasing or property transfer during the long-term operations and maintenance activities for a period of at least 100 years. The Hall Amendment of the National Defense Authorization Act of 1994 (42 USC § 9620 et seq.) requires concurrence from the EPA on the lease of any National Priorities List sites during the period of DOE control, and CERCLA [42 USC 9620(h)(3)] requires that the state be notified of a lease involving contamination. When DOE no longer manages INEEL activities and controls are needed as prescribed by 42 USC 9620(h)(3), DOE is required to indicate the presence of contamination and any restrictions in the property transfer documentation.

## 6. REPORTING

Although the reporting procedures for documenting and reporting the effectiveness of ICs at the INEEL are currently under development and review, an updated “Institutional Control Monitoring Report” will be submitted to EPA and IDEQ every 5 years to support the 5-year review process (EPA 1999a). At a minimum, the “Institutional Controls Monitoring Report” will contain the following components:

- A description of the means employed to meet WAG 5 IC requirements
- A description of the means employed to meet site-specific objectives, including the results of visual field inspection of all areas subject to site-specific restrictions
- An evaluation of the effectiveness of the approach to meet all WAG-wide IC requirements and site-specific objectives
- A description of any deficiencies of the approach and the efforts or measures that have been or will be taken to correct problems.

All reports will be submitted electronically to the INEEL Information Repository for records storage.

## **7. RECORDKEEPING**

The recordkeeping procedures for documenting the application, installation, maintenance, and continued requirements of the OU 5-12 ICs are currently under development. Once finalized, these procedures will be added to this section of the OU 5-12 ICP. All reports will be submitted electronically to the INEEL Information Repository for records storage.

The WAG 5 OU 5-12 “Institutional Control Field Inspection Checklist” presented in Appendix B and the “Institutional Controls Monitoring Report Questionnaire” shown in Appendix C have been drafted and are expected to be utilized to record the effectiveness and maintenance of the ROD mandated ICs.

## 8. RESPONSE TO FAILED CONTROLS AND CORRECTIVE ACTION

The DOE will notify the EPA and the State of Idaho within 48 hours upon discovery of any activity that is inconsistent with the OU specific IC objectives for a site, or of any change in the land use or land use designation of a site addressed in the ROD. Examples of reportable items include:

1. Unauthorized intrusion into a waste site
2. Access to a waste site by personnel not authorized for entry
3. Violation of a land control objective.

The DOE will work with the EPA and the State of Idaho to determine a plan of action to rectify the situation, except in the case where the DOE believes the activity creates an emergency situation. In those cases, the DOE can respond to the emergency immediately upon notification to the EPA and the State of Idaho and need not wait for EPA or State of Idaho input to determine a plan of action. The DOE will also identify the root cause of the IC process failure, evaluate how to correct the process to avoid future problems, and implement these changes after consulting with the EPA and the State of Idaho.

Table 8-1 provides the responses to failed control procedures that will be used during DOE control of the INEEL.

**Table 8-1.** Land use controls, procedures, surveillance, and response to failed controls during DOE control.

Controls	Control Procedures	Surveillance to Assure Controls in Place <sup>a</sup>	Response to Failed Controls
Control of Activities	Procedure for publishing surveyed boundaries in the INEEL CFLUP	Check continued process applicability	Correct process or procedure
	WAG 5, OU 5-12, sites included in the INEEL CFLUP	Check INEEL CFLUP for inclusion	Correct deficiency in INEEL Land Use Plan
	Procedures which formally review any new activity prior to proceeding	Check continued process applicability	Correct process or procedure
	Procedure for Radiological Work Permit	Check continued process applicability	Correct process or procedure
Access Restrictions	Included as part of RD/RA. Posted warning signs indicating area and depth of contamination and threats	Inspection to ensure signage is in-place at appropriate locations	Notify EPA and State immediately and correct deficiency.

**Table 8-1.** (continued).

Controls	Control Procedures	Surveillance to Assure Controls in Place <sup>a</sup>	Response to Failed Controls
Prohibition of unauthorized entry with signs, rope or fences as specified, and guarded gates to INEEL.	10 CFR 860 (implemented through DOE Order 5632.1C and DOE's management and operating and security manuals)	Check continued process applicability	Use procedures for conducting investigations of security incidents in 10 CFR 860 (implemented through DOE Order 5632.1C and DOE's management and operating and security manuals)
Control of occupational radiation exposure, personnel training, and recordkeeping	10 CFR 835 (implemented through DOE Order 5400.5, PRD-183 "Radiological Control Manual," MCP-139 Radiological Surveys, MCP-126-"Radiological Training," MCP-188 "Issuance of TLDs and Obtaining Personnel Dose History")	Check continued process applicability	Correct process or procedures
Property lease restrictions	Procedure for publishing surveyed boundaries in the INEEL Land Use Plan	Check continued process applicability and inclusion of sites within the INEEL Land Use Plan	Correct process or procedures and/or deficiency in the INEEL Land Use Plan
Depth of Water Resources prohibition on well permits	Provide surveyed area and map to Department of Water Resources. The Department maintains a listing of areas prohibited from well drilling and uses IDAPA 37.03.09.040-041 to designate areas of drilling concern and requires permits to drill wells.	Visual inspection of monitoring wells. Check inclusion of the map in the Department of Water Resources records.	Repair or abandon monitoring well. Correct deficiency in the Department of Water Resources records.

a. Checks and inspections to occur annually until stakeholders modify frequency.

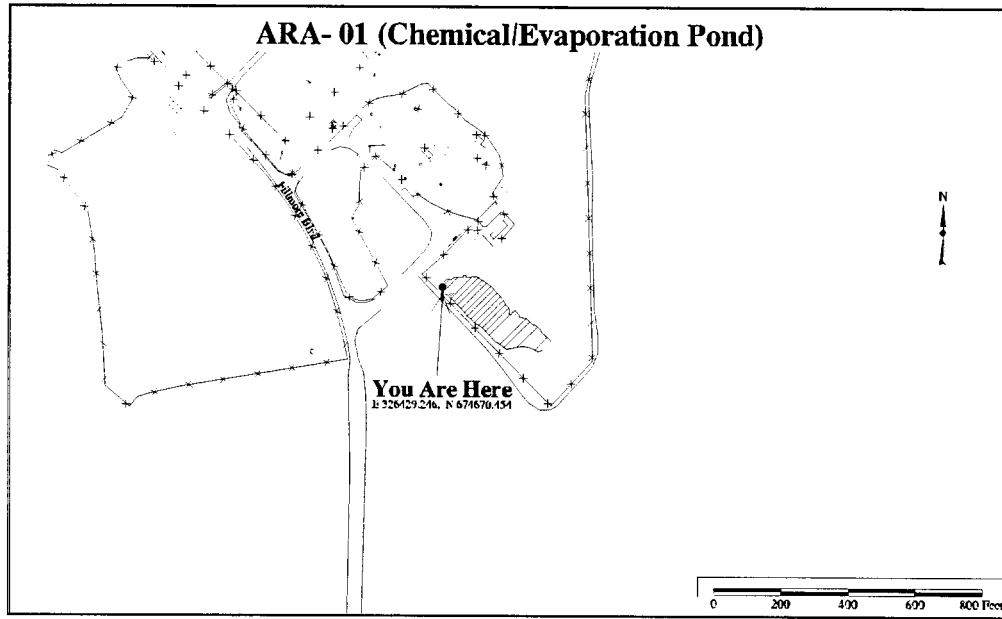
## 9. REFERENCES

- 42 USC § 9620 et seq., January 5, 1999, "Federal Facilities," *United States Code*.
- DOE/ID, 2000, Institutional Controls Status Report for the Power Burst Facility and Auxiliary Reactor Area, Operable Unit 5-12 (Draft), Rev. A, June 2000, DOE/ID-10797.
- DOE/ID, 1997, Idaho National Engineering and Environmental Laboratory Comprehensive Facility and Land Use Plan, U.S. Department of Energy DOE/ID-10154, December.
- DOE/ID, 1991, *Federal Facility Agreement and Consent Order*, U.S. Department of Energy Idaho Operations Office, Idaho Department of Health and Welfare, and U.S. Environmental Protection Agency.
- EPA, 1999a, Draft Five-year Review Guidance.
- EPA, 1999b, Draft Institutional Controls and Transfer of Real Property Under CERCLA Section 120(h)(3)(A), (B) or (C), June.
- EPA, 1999c, Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities, United States Environmental protection Agency, Region 10, Memorandum, May 3.

## **Attachment 1**

### **CERCLA Sign and Monument Template**

# Institutionally Controlled Area



## Contaminants of Concern

Arsenic, Selenium,  
Thallium

## Contaminated Media

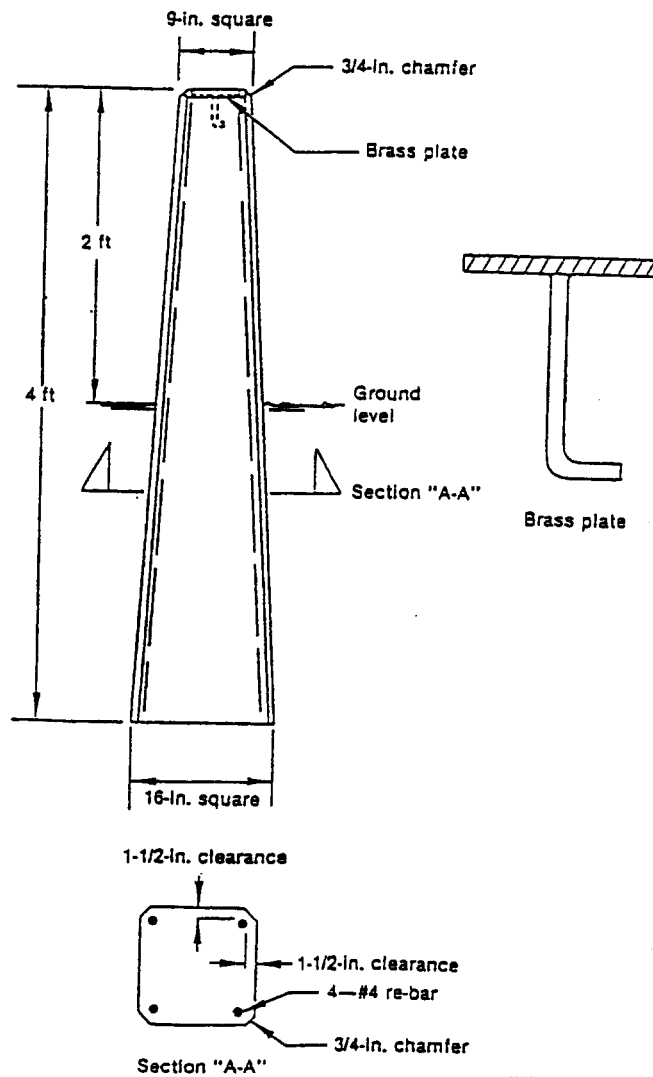
Soil

## Waste Handling Concerns

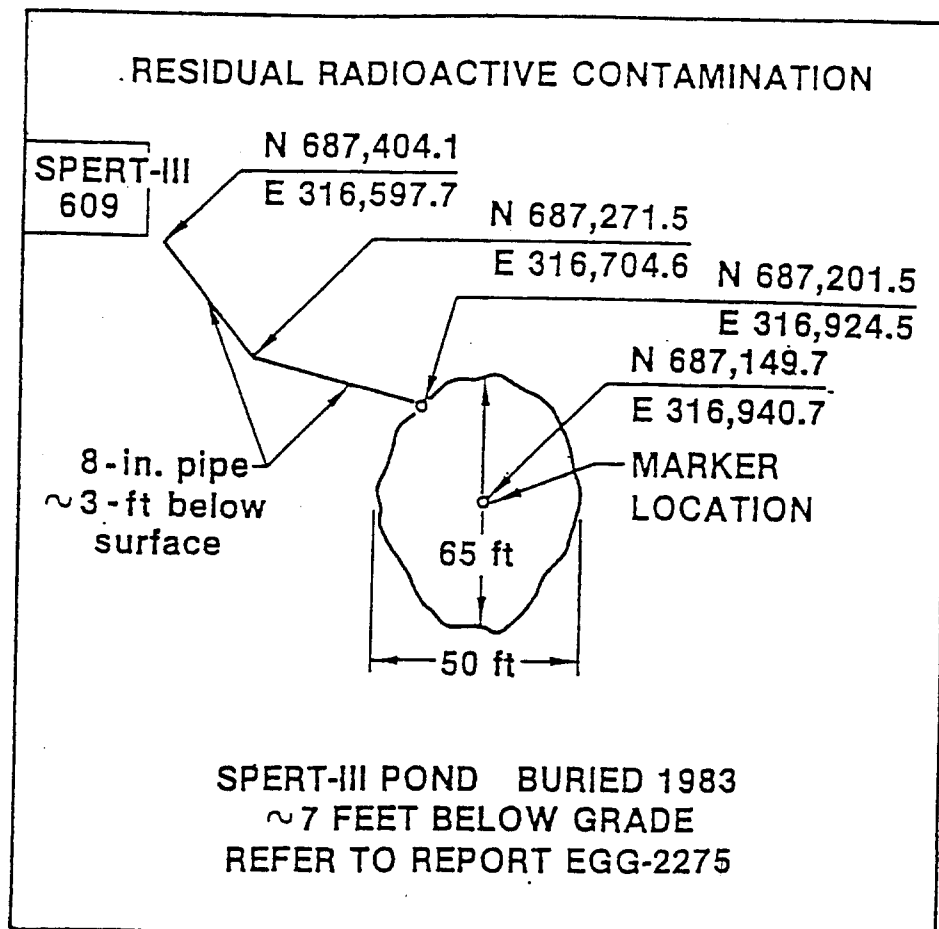
Before generating waste,  
contact ARA Waste  
Generator Services

**Before disturbing this area, call  
Environmental Restoration at 526-1515**

# Concrete Marker Construction Schematic



Format—Brass Plate for Concrete Marker



INEL 4 0452

## **Appendix B**

### **Institutional Control Field Inspection Checklist**

## WAG 5, OU 5-12 INSTITUTIONAL CONTROL FIELD INSPECTION CHECKLIST

DATE/TIME: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

Name	Title	Organization
------	-------	--------------

INSPECTOR: \_\_\_\_\_

Name	Title	Organization
------	-------	--------------

1. WASTE SITE ID: \_\_\_\_\_

2. GROUP NUMBER (if applicable): \_\_\_\_\_

3. SITE DESCRIPTION:

\_\_\_\_\_  
\_\_\_\_\_

4. ROD LAND USE: \_\_\_\_\_

5. CURRENT LAND USE: \_\_\_\_\_

6. CHECK THE INSTITUTIONAL CONTROLS REQUIRED FOR THE SITE:

Visible Access Restrictions:

Warning Signs \_\_\_\_\_

Fencing \_\_\_\_\_

Control of Activities \_\_\_\_\_

Unauthorized access \_\_\_\_\_

Comprehensive Land Use Plan \_\_\_\_\_

Property lease or transfer restrictions \_\_\_\_\_

IDWR prohibition on wells \_\_\_\_\_

Notice to affected stakeholders (if applicable) \_\_\_\_\_

7. CHECK THE INSTITUTIONAL CONTROLS OBSERVED FOR THE SITE:

Visible Access Restrictions:

Warning Signs \_\_\_\_\_

Fencing \_\_\_\_\_

Control of Activities \_\_\_\_\_

Unauthorized access \_\_\_\_\_

Comprehensive Land Use Plan \_\_\_\_\_

Property lease or transfer restrictions \_\_\_\_\_

IDWR prohibition on wells \_\_\_\_\_

Notice to affected stakeholders (if applicable) \_\_\_\_\_

8. ARE THE INSTITUTIONAL CONTROLS OPERATIONAL AND FUNCTIONAL? \_\_\_\_\_

9. ARE SURVEYED MAPS OF THE SITE AVAILABLE? YES \_\_\_\_\_ NO \_\_\_\_\_

Provide Map Number(s) \_\_\_\_\_

10. TAKE PHOTOGRAPHS OF EACH SITE, IDENTIFY THE DATE, TIME, LOCATION AND COMPASS ORIENTATION OF EACH PHOTOGRAPH IN A PHOTOGRAPHIC LOG. [SEE ATTACHED PHOTO NUMBER LOG]

11. PROVIDE THE CURRENT STATUS OF ANY REMEDIAL ACTIONS AT THE SITE, e.g., REMEDIAL DESIGN, CONSTRUCTION, O&M, ETC :

\_\_\_\_\_

12. IS THERE ANY EVIDENCE OF HUMAN INTRUSION (i.e. excavation marks, changes in features of original cover)? \_\_\_\_\_ EXPLAIN \_\_\_\_\_

13. DO WARNING SIGNS CLEARLY IDENTIFY WHAT THE RISK-BASED CONCERNS ARE? \_\_\_\_\_ EXPLAIN \_\_\_\_\_

14. ARE WARNING SIGNS VISIBLE FROM ALL AVENUES OF APPROACH TO THE IC CONTROLLED AREA? \_\_\_\_\_ EXPLAIN \_\_\_\_\_

15. ARE REQUIRED SIGNS INTACT AND READABLE? \_\_\_\_\_ EXPLAIN \_\_\_\_\_

\_\_\_\_\_

16. ARE IC FENCED AREAS COMPLETELY FENCED AND GATE(S) LOCKED? \_\_\_\_\_

17. ARE FENCES INTACT (if applicable)? \_\_\_\_\_ EXPLAIN \_\_\_\_\_

18. ARE REQUIRED BOUNDARY MONUMENTS INTACT AND READABLE (if applicable)?  
\_\_\_\_\_ EXPLAIN \_\_\_\_\_

19. ARE MONITORING WELLS [IDENTIFIED IN THE MAP PROVIDED IN THE  
GROUNDWATER MONITORING REPORT (DOE-ID 2000b)] LOCKED (if  
applicable)? \_\_\_\_\_

20. ARE ANY NON-CERCLA WELLS (DOE-ID 2000b) OPERATING IN THE GROUNDWATER IC  
RESTRICTION AREA? IF YES, DESCRIBE THE WELLS AND WHAT PROGRAM(S) THEY  
OPERATE UNDER.  
\_\_\_\_\_

21. ARE SITE VISITORS CONTROLLED THROUGH BADGING FOR AUTHORIZED ACCESS  
ONLY IC RESTRICTION AREA? \_\_\_\_\_

22. ARE WORKERS IN RADIOLOGICALLY CONTROLLED IC AREAS OPERATING UNDER AN  
APPROVED WORK PERMIT? \_\_\_\_\_

23. ARE ONLY DOE-RAD WORKER TRAINED INDIVIDUALS OPERATING IN  
RADIOLOGICALLY CONTROLLED AREAS? \_\_\_\_\_

24. ARE DOE-ID DIRECTIVES AND PROCEDURES IMPLEMENTING IC RESTRICTIONS IN  
PLACE? \_\_\_\_\_ LIST THE APPLICABLE DOE-ID DIRECTIVES AND PROCEDURES:

TYPE (DOE-ID Directive, Management Control Procedure, Plan, Etc.)	NUMBER/TITLE

25. HAVE REQUIRED NOTICES BEEN SENT TO AFFECTED STAKEHOLDERS (IF  
APPLICABLE)? \_\_\_\_\_

**DEFICIENCIES:**

26. PROVIDE A DESCRIPTION OF ANY DEFICIENCIES AND WHAT EFFORTS OR MEASURES  
HAVE BEEN OR WILL BE TAKEN TO CORRECT PROBLEMS:

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**IMPROVEMENTS:**

27. DESCRIBE ANY ADDITIONAL IC REQUIREMENTS THAT MAY BE NECESSARY DUE TO UNIQUE CIRCUMSTANCES OBSERVED DURING THE VISUAL INSPECTION:

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**I certify that the above inspection report is true and accurate to the best of my ability.**

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<b>Inspector signature</b>	<b>Date</b>
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<b>Inspector signature</b>	<b>Date</b>
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## SITE INSPECTION PHOTO NUMBER LOG

WASTE SITE ID: \_\_\_\_\_

GROUP NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

TIME OF DAY( if applicable): \_\_\_\_\_

WEATHER CONDITIONS: \_\_\_\_\_

ROLL NUMBER: \_\_\_\_\_

FILM TYPE: \_\_\_\_\_

NUMBER OF EXPOSURES: \_\_\_\_\_

PHOTO NUMBER	LOCATION AND DIRECTION	DESCRIPTION

**Appendix C**  
**Institutional Control Monitoring Report Questionnaire**

## WAG 5, OU 5-12 INSTITUTIONAL CONTROL MONITORING REPORT QUESTIONNAIRE

DATE/TIME: \_\_\_\_\_

INSPECTOR:

\_\_\_\_\_

Name

Title

Organization

INSPECTOR:

\_\_\_\_\_

Name

Title

Organization

**GENERAL O.U. DESCRIPTION AND OPERATIONAL HISTORY:** Provide a brief description of the Operable Unit and its operational history since the last monitoring inspection (or ROD signature if the first inspection). Summarize the Record of Decision's Institutional Controls and land use assumptions. Also, provide a brief description of how INEEL is meeting the facility-wide IC requirements. [use additional sheets as necessary]

1. Has INEEL developed a comprehensive facility-wide approach for establishing, implementing, enforcing, and monitoring ICs at the facility? This approach will frequently include a Base Master Plan or a facility-wide land use plan, installation maps, a comprehensive permitting system and other installation policies and orders?

The INEEL Comprehensive Facility & Land Use Plan (CFLUP) serves the general function. This is supplemented with Environmentally Controlled Area Disturbance procedures (MCP-1139). DOE-ID directives will be issued, as necessary, to place additional restrictions on activities.

- A. Review the file of WAG 5, OU 5-12 Notice of Soil Disturbance reports and compare against visual observations and work authorization forms. Did DOE-ID inform the state & EPA of all planned site disturbances prior to occurrence since ROD signed or last Monitoring Report?

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- B. Did any WAG 5, OU 5-12 Environmentally Controlled Disturbances require state and EPA approval prior to implementation? If yes, describe the process.

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- C. Were there any non-planned WAG 5, OU 5-12 Environmentally Controlled Disturbances reported? If yes, describe each occurrence.

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2. Does the CFLUP (or equivalent) list all areas or locations covered by the WAG 5, OU 5-12 ROD that has ICs for protection of human health or the environment.?

The CFLUP lists all the WAG 5, OU 5-12 areas under CERCLA investigation as listed in the FFA/CO and subsequent documents.

3. Does the CFLUP (or equivalent) include the following information that addresses all action and No Further Action sites in WAG 5, OU 5-12?

- A. Does the CFLUP describe how and what entities and persons are covered by the ICs? If yes, list who is covered, e.g., contractors, employees, invitees, etc. and describe the nature of the coverage.

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- B. Describe the authority used by DOE-ID to restrict access or use of the CERCLA IC sites by type of site (e.g., NFA-radiological; NFA-non-radiological; RA -pre-construction complete; and post construction)

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- C. Does the CFLUP address the following activities: future soil disturbance; routine and non-routine utility work; well placement and drilling; recreational activities; groundwater withdrawals; paving; training activities; construction; renovation work on structures; or other activities? Describe by type of site:

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- D. Describe how the CFLUP serves as a tracking mechanism that identifies all land as under restriction or control?

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- E. Describe the process that is in place to promptly notify both EPA and the state prior to any anticipated change in land use designation, restriction, land users or activity for any IC required by a decision document.

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4. Has INEEL designated a point of contact for implementing, maintaining, and monitoring ICs at WAG 5, OU 5-12? If yes, provide name, title & phone number?

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5. Has DOE-ID obtained sufficient funding to institute and maintain ICs, pursuant to Paragraph 28 of the FFA/CO? If no, describe what steps were taken to obtain sufficient funding.

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6. Has INEEL deleted or terminated any IC pertaining to WAG 5, OU 5-12? If so describe the circumstances to include how the state and EPA were involved in the decision?

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7. Has INEEL transferred, sold or leased any property subject to ICs in WAG 5, OU 5-12? If yes, please describe to include dates of notification to state & EPA.

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8. Has INEEL transferred, sold or leased any other WAG 5 property? If yes, please describe to include dates of notification to state & EPA.

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9. Does INEEL have any plans in the next year to transfer, sell or lease any WAG 5 properties?

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**DEFICIENCIES:**

10. PROVIDE A DESCRIPTION OF ANY DEFICIENCIES AND WHAT EFFORTS OR MEASURES HAVE BEEN OR WILL BE TAKEN TO CORRECT PROBLEMS:

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**IMPROVEMENTS:**

11. DESCRIBE ANY ADDITIONAL IC REQUIREMENTS THAT MAY BE NECESSARY DUE TO UNIQUE CIRCUMSTANCES OBSERVED DURING THE VISUAL INSPECTION:

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**I certify that the above answers to the questionnaire are true and accurate to the best of my ability.**

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**Responder signature**

**Date**

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**Responder signature**

**Date**